The Spitzer Space Telescope Mission

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The Spitzer Space Telescope (formerly known as SIRTF) was successfully launched on August 25, 2003, and has completed its initial in-orbit checkout and science validation and calibration period. The measured performance of the observatory has met or exceeded all of its high-level requirements, it entered normal operations in January 2004, and is returning high-quality science data. A superfluid-helium cooled 85-cm diameter telescope provides extremely low infrared backgrounds and feeds three science instruments covering wavelengths ranging from 3.6 to 160 microns. The telescope optical quality is excellent, providing diffraction-limited performance down to wavelengths below 6.5 microns. Based on the first helium mass and boil-off rate measurements, a cryogenic lifetime in excess of 5 years is expected. Even after only a few months on orbit, it is clear that Spitzer will be a very important scientific and technical pacesetter for Herschel and all future infrared missions. This presentation will include scientific highlights but is intended mainly to provide a summary of the overall performance of the observatory, with an emphasis on those performance parameters that have the greatest impact on its ultimate science return.

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